APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,261	02/09/2004	Gyana Ranjan Parija	YOR920030256US1	8578

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EXAMINER
FREJD, RUSSELL WARREN

ART UNIT	PAPER NUMBER
2128	

MAIL DATE	DELIVERY MODE
08/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/773,261	PARIJA ET AL.
Office Action Summary	Examiner	Art Unit	
	Russell Frejd	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>11 May 2009</u>.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-21</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) <u>9-13</u> is/are allowed.
6) ☒ Claim(s) <u>1-5,8 and 14-21</u> is/are rejected.
7) ☒ Claim(s) <u>6,7</u> is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Examination of Application 10/773,261

1.   Claims 1-21 of application 10/773,261, filed on 9-February-2004, are pending in the

application. This communication is in response to the Notice of Withdrawal from Allowance,

filed on 11-May-2009, and in view of the Amendment received 22-August-2008. Please note

the items below that were discussed in the Examiner's Amendment dated 22-December-2008,

and the rejection using the reference discovered during the review process.

Claim Rejections under 35 U.S.C. § 101

2.   Claims 1-4 and 14-21 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

2.1   In regard to claims 1-4 and 21, and further In view of the memorandums from John Love

dated 15-May-2008 and 7-January-2009, a § 101 process must: (1) be tied to another statutory

class (such as a particular apparatus), or (2) transform underlying subject matter (such as an

article or materials) to a different state or thing. If neither of these requirements is met by the

claim, the method is not a patent eligible process under § 101, and is therefore non-statutory

subject matter. To qualify as a § 101 statutory process, the claim should positively recite the

other statutory class (the thing or product) to which it is tied, or positively recite the subject

matter that is being transformed. The Examiner contends that independent claim 1 at least

does not positively recite the other statutory class (the thing or product) to which it is tied.

        Please note that an agreement was reached between Applicant's representative and the

Examiner on 8-December-2008, via an Examiner's amendment, that the following changes

would overcome this rejection:

| Claim 1 | line 3 | Change "for a process," to --for a process to be executed on a computer, --. |

2.2   In regard to claims 14-20, the Examiner posits that these claims are computer executable software code, or a program per se, consisting of a computerized tool having software instructions that implement the method for providing a global solution to a minimum-maximum problem. For at least this reason, the software instructions of the present invention do not meet the criteria for a statutory process (MPEP Section 2106.01).

Please note that an agreement was reached between Applicant's representative and the Examiner on 8-December-2008, via an Examiner's amendment, that the following changes would overcome this rejection:

Claim 14	line 2	After "comprising:" add --a computer connected to a memory;--.
	line 4	Change "problem; and " to --problem; a calculator to determine which point on said periphery provides a global solution to said minimum-maximum problem; and--.
	line 6	Change "a memory" to --said memory--.
Claim 18		Cancel claim 18.

Claim Rejections under 35 U.S.C. § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.1   Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiang et al., USPAP 2003/0220772.

3.2   Chaing et al. disclose:

Claims 5 and 8: An apparatus for a global optimization to a minimum-maximum problem

comprising: A receiver to receive data related to said minimum-maximum problem, for

populating a min-max model (claim 5) [section(s) 0004];

a first calculator to provide a plurality of minimum values (claims 5 and 8) [0004, 0014];

a second calculator to locate a global optimum value, given a plurality of minimum

values (claims 5 and 8)[0014];

a transmission port to send said global optimum to at least one of a display device, a

printer, and a memory (claims 5 and 8)[0024].

Also, claim 8 provides a memory containing data appropriate to a minimum-maximum

problem [deemed inherent to the discussion in 0024].

Claim Objections
4.   Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but

would be allowable, pending resolution of any rejections noted above, if rewritten in independent

form including all of the limitations of the base claim and any intervening claims. The limitations

considered allowable are:

Claim 6: The apparatus of claim 5, wherein at least one of said first calculator and said second

calculator comprises a linear programming solver.

Claim 7: The apparatus of claim 5, wherein: said receiver comprises a memory interface to access a memory containing data; and a third calculator to convert the data accessed from said memory into a data structure appropriate for said first calculator and said second calculator and thereby populating said rain- max model.

Allowed Claims

5.   Claims 1-4 and 9-21 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above, because the prior art does not specifically claim, in regard to independent claims 1, 9 and 13: for a process, wherein is defined a linear functional form $y = f(X,c)$, where X comprises a set of independent variables $X = \{x_1, \ldots x_n\}$, c comprises a set of functional parameters $c = \{c_1, \ldots c_n\}$, and y comprises a dependent variable, where the independent variables set X is partitioned into two subsets, X_1 and X_2, receiving data for said process [defined at p. 4, lns. 4-13]; minimizing y with respect to X_1 [p. 4, ln. 11]; and maximizing y with respect to X_2 [p. 4, ln. 11], subject to a set of constraints, wherein said maximizing y comprises a global optimum for said process [p. 4, lns. 12-13]; and sending said global optimum to at least one of a display device, a printer, and a memory [p. 17 ln. 20 through p. 18, ln. 7]. Also, in regard to independent claim 14: a linear programming solver to calculate a periphery of a polyhedron representing a region of all points that satisfy a linear constraint in a minimum-maximum problem [p. 5, lns. 15-19].

   Dependent claims 2-4, 10-12, and 15-21 are deemed allowable as depending either directly or indirectly from independent claims 1, 9, 13, and 14.

Response Guidelines

6.   A shortened statutory period for response to this action is set to expire **3 (three) months
and 0 (zero) days** from the date of this letter. Failure to respond within the period for response
will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

6.1   Any response to the Examiner in regard to this non-final action should be

directed to:	Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.
mailed to:	Commissioner of Patents and Trademarks P.O. Box 1450, Alexandria, VA 22313-1450
or faxed to:	(571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph
Building, 401 Dulany Street, Alexandria, VA, 22314.

       /Russell Frejd/
Primary Examiner AU 2128